(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 31 January 2002 (31.01.2002)

(10) International Publication Number WO 02/008871 A3

(51) International Patent Classification7: G06F 1/00

CA 92128 (US). GONZALEZ, Manuel [ES/ES]; Maspons, 1 2o la, 08012 Barcelona (ES).

(21) International Application Number: PCT/EP01/08318

(74) Agent: ORSI, Alessandro; Hewlett-Packard Española, S.A., Legal Department, Avda. Graells, 501, 08190 Sant Cugat del Valles (ES).

(84) Designated States (regional): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,

(22) International Filing Date: 19 July 2001 (19.07.2001)

(81) Designated States (national): CA, CN, JP, US.

(25) Filing Language:

NL, PT, SE, TR).

(26) Publication Language:

English

English

(30) Priority Data:

0017911.9

21 July 2000 (21.07.2000) GB

0019185.8

7 August 2000 (07.08.2000)

(71) Applicant (for all designated States except US): HEWLETT-PACKARD COMPANY [US/US]; 3000, Hanover Street, Palo Alto, CA 94304 (US).

Published: with international search report

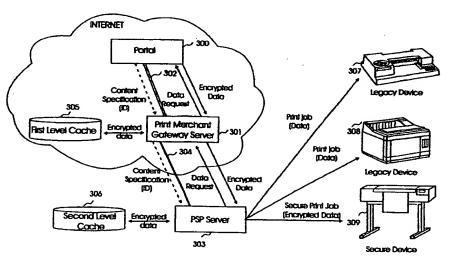
(88) Date of publication of the international search report: 4 July 2002

(72) Inventors; and

(75) Inventors/Applicants (for US only): CHIARABINI, Luca [IT/US]; 14984 Avenida Venusto #47, San Diego,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DUAL LEVEL ENCRYPTED CACHE FOR SECURE DOCUMENT PRINT ON DEMAND



(57) Abstract: An on-line distributed printing network comprises a portal computer, a print manager computer 301 and at least one print service provider computer 302. The portal computer 300 and print merchant computer 301 are connected by a relatively high bit rate capacity communications link 302. The print merchant computer and print service provider computer 303 are connected by a conventional low bit rate capacity communications link 304. a conventional low bit rate capacity communications link 304, e.g. a 25 kilobits per second modern. The print manager computer and print service provider computer have respective first and second level cache data storage devices for storage of encrypted content data transferred from the portal to the print manager computer to the print service provider computer. Local storage of encrypted content data at the first and second level cache devices reduces the need for transmission of high volumes of content data over the communications links. Encryption of the content data is maintained throughout the communications up until a final printer device 309 which has decryption capability, thereby ensuring security of content data from portal to printer device.



INTERNATIONAL SEARCH REPORT

Inte nal Application No PCT/EP 01/08318

IPC 7	FICATION OF SUBJECT MATTER 606F1/00		
According to	International Patent Classification (IPC) or to both national classificat	ion and IPC	
B. FIELDS	SEARCHED		
Mintmum do IPC 7	cumentation searched (classification system followed by classification $G06F$	n symbols)	
Documentat	ion searched other than minimum documentation to the extent that su	ch documents are included in the fields sea	arched
Electronic d	ata base consulted during the international search (name of data base	e and, where practical, search terms used)	
EPO-In	ternal, PAJ, WPI Data		
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the rele	vant passages	Relevant to claim No.
X	EP 0 665 486 A (PASSAT 81 A S) 15 December 1982 (1982-12-15)		1-4,7, 9-11,17, 19
	the whole document	·	
A	WO 97 23990 A (EHRLICH CHEYENNE) 3 July 1997 (1997-07-03) the whole document		1,2,7,9, 17,19
	ther documents are listed in the continuation of box C.	χ Patent family members are listed	in annex.
A document defining the general state of the art which is not considered to be of particular relevance "E* earlier document but published on or after the international filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention filing date "X* document but published on or after the international filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone value of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "Y* document referring to an oral disclosure, use, exhibition or other means of the international filing date but later than the priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention. "X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered no			the application but sory underlying the laimed Invention be considered to current is taken alone laimed invention ventive step when the re other such docusts to a person skilled
Date of the	actual completion of the international search	Date of mailing of the international sea	arch report
1	15 January 2002	22/01/2002	
Name and	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NI. – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fac. (+31-70) 340-3016	Authorized officer Weiss, P	
i .		1	

1

INTERNATIONAL SEARCH REPORT

mation on patent family members

Inter nel Application No
PC'I/Er' 01/08318

	document search report		Publication date		Patent family member(s)	Publication date
EP 0665486	A	02-08-1995	US	5509074 A	16-04-1996	
2. 00		••		CA	2137065 A1	28-07-1995
				EP	0665486 A2	02-08-1995
				JP	3121738 B2	09-01-2001
				JP	7239828 A	12-09-1995
WO 97	 '23990	Α	03-07-1997	AU	1465097 A	17-07-1997
NO 37	20330	••		MO	9723990 A1	03-07-1997